STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2005 –06 & thereafter)
SUBJECT CODE: ZL/MC/LT54
B.Sc. DEGREE EXAMINATION NOVEMBER 2009
BRANCH VI A: – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : MEDICAL LABORATORY TECHNOLOGY
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION A

ANSWER ALL THE QUESTIONS **(10 X 3 = 30)**

1. **FILL IN THE BLANKS**

   (a) Blood collection from the vein is known as ----------.
   (b) ---------- tube is used to estimate ESR.
   (c) Presence of blood in the Urine is called ----------.

2. **DISTINGUISH BETWEEN**
   (a) Hypoglycemia from hyperglycemia.
   (b) Contaminative and inoculative mode of infection
   (c) Plasma and serum

3. Draw neat labeled diagram of agranular leucocytes.

4. What is (a) Prothrombin time
   (b) Bile salt
   (c) Polycythemia
5. Give the normal range for
   (a) Clotting time (b) PCV (c) Haemoglobin

6. **STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE/FALSE:**

   (a) Eosinophil has a dumpbell shaped nucleus.
   (b) Turk's fluid is essential for total RBC count.
   (c) Schizont stage of *Plasmodium* is injected by mosquito into human blood.
   (d) Swineflu is caused by a bacterium.
   (e) Insulin is secreted by alpha cells of pancreas.
   (f) AIDS is a disorder and not a disease.

7. **MATCH THE FOLLOWING:**

(a)	Drabkins's reagent	-	blood sugar test
(b)	Non-Heparinized capillary tube	-	pregnancy
(c)	Fibrinogen	-	haemoglobin
(d)	Incineration	-	microhaematocrit
(e)	hcG	-	sterilization
(f)	O-toluidine	-	coagulation

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8. Give the diagnostic significance of the following tests
   (a) Hay's Test (b) DAM method (c) Western Blot test

9. Give the expansion for the following:
   (a) GLP (b). PCV (c) WBC

10. Name the causative organisms for
    (a) Jaundice (b) Elephantiasis (c) Syphilis

SECTION B

ANSWER ANY FIVE QUESTIONS: (5 x 6 = 30)

11. Write the procedure for the estimation of Hb. Give the normal value.
12. Draw a neat labeled sketch of magnified view of Neubauer chamber, Write the normal value of total RBC count and Total WBC count.
13. Write short notes on physical features (qualitative analysis) of motion sample.
14. Briefly describe the pathological changes due to Hepatitis A infection.
15. Describe the procedure for the estimation of Blood glucose and its normal value.
16. Explain briefly the immunological tests for pregnancy.
17. Draw and describe the process of blood coagulation.

SECTION C

ANSWER ANY TWO QUESTIONS: (2 x 20 = 40)

18. Draw and describe Haemopoiesis.
19. Summarize various tests done with urine sample.
20. Write an essay on Biomedical Waste Management.
21. Describe in detail heat method of sterilization of laboratory items.

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